

From the INTERNATIONAL BUREAU

PCTNOTIFICATION CONCERNING
TRANSMITTAL OF COPY OF INTERNATIONAL
PRELIMINARY REPORT ON PATENTABILITY
(CHAPTER I OF THE PATENT COOPERATION
TREATY)

(PCT Rule 44bis.1(c))

To:

HENNEMAN, Larry, E., Jr.
Henneman & Associates, P/c
714 W. Michigan Ave.
Three Rivers, MI 49093
ETATS-UNIS D'AMERIQUEDate of mailing (*day/month/year*)
12 March 2009 (12.03.2009)Applicant's or agent's file reference
0057-014P3PCT**IMPORTANT NOTICE**International application No.:
PCT/US2007/004083International filing date (*day/month/year*)
16 February 2007 (16.02.2007)Priority date (*day/month/year*)
16 February 2006 (16.02.2006)

Applicant

VNS PORTFOLIO LLC et al

The International Bureau transmits herewith a copy of the international preliminary report on patentability (Chapter I of the Patent Cooperation Treaty)

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter 1 of the Patent Cooperation Treaty)

(PCT Rule 44bis)

Applicant's or agent's file reference 0057-014P8PCT	FOR FURTHER ACTION		See item 4 below
International application No. PCT/US2007/004083	International filing date (<i>day/month/year</i>) 16 February 2007 (16.02.2007)	Priority date (<i>day/month/year</i>) 16 February 2006 (16.02.2006)	
International Patent Classification (8th edition unless older edition indicated) See relevant information in Form PCT/ISA/237			
Applicant VNS PORTFOLIO LLC			

1. This international preliminary report on patentability (Chapter I) is issued by the International Bureau on behalf of the International Searching Authority under Rule 44 *bis*. 1(a).

2. This REPORT consists of a total of 7 sheets, including this cover sheet.

In the attached sheets, any reference to the written opinion of the International Searching Authority should be read as a reference to the international preliminary report on patentability (Chapter I) instead.

3. This report contains indications relating to the following items:

- | | |
|---|---|
| <input checked="" type="checkbox"/> Box No. I | Basis of the report |
| <input type="checkbox"/> Box No. II | Priority |
| <input type="checkbox"/> Box No. III | Non-establishment of opinion with regard to novelty, inventive step and industrial applicability |
| <input type="checkbox"/> Box No. IV | Lack of unity of invention |
| <input checked="" type="checkbox"/> Box No. V | Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement |
| <input type="checkbox"/> Box No. VI | Certain documents cited |
| <input type="checkbox"/> Box No. VII | Certain defects in the international application |
| <input type="checkbox"/> Box No. VIII | Certain observations on the international application |

4. The International Bureau will communicate this report to designated Offices in accordance with Rules 44bis.3(c) and 93bis.1 but not, except where the applicant makes an express request under Article 23(2), before the expiration of 30 months from the priority date (Rule 44bis.2).

Date of issuance of this report
03 March 2009 (03.03.2009)

Authorized officer

Nora Lindner

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PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To:

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PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

Date of mailing
(day/month/year)

04 SEP 2008

Applicant's or agent's file reference

0057-014P3PCT

FOR FURTHER ACTION

See paragraph 2 below

International application No.

PCT/US07/04083

International filing date (day/month/year)

16 February 2007 (16.02.2007)

Priority date (day/month/year)

16 February 2006 (16.02.2006)

International Patent Classification (IPC) or both national classification and IPC

IPC: G06F 15/00 (2006.01)

USPC: 712/034

Applicant

TECHNOLOGY PROPERTIES LIMITED

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/ US

Mail Stop PCT, Attn: ISA/US
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450
Facsimile No. (571) 273-3201

Date of completion of this opinion

20 August 2008 (20.08.2008)

Authorized officer

Thomas Dunn

Telephone No. 571-272-1700

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.

PCT/US07/04083

Box No. I Basis of this opinion

1. With regard to the language, this opinion has been established on the basis of:

- ☒ the international application in the language in which it was filed
- ☐ a translation of the international application into _____, which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).

2. ☐ This opinion has been established taking into account the rectification of an obvious mistake authorized by or notified to this Authority under Rule 91 (Rule 43bis.1(a)).

3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, this opinion has been established on the basis of:

a. type of material

- ☐ a sequence listing
- ☐ table(s) related to the sequence listing

b. format of material

- ☐ on paper
- ☐ in electronic form

c. time of filing/furnishing

- ☐ contained in the international application as filed.
- ☐ filed together with the international application in electronic form.
- ☐ furnished subsequently to this Authority for the purposes of search.

4. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table(s) relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

5. Additional comments:

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITYInternational application No.
PCT/US07/04083**Box No. V Reasoned statement under Rule 43 bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement****1. Statement**

Novelty (N)

Claims 9-11 YESClaims 1-8, 12-28 NO

Inventive step (IS)

Claims NONE YESClaims 1-28 NO

Industrial applicability (IA)

Claims 1-28 YESClaims NONE NO**2. Citations and explanations:**

Please See Continuation Sheet

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US07/04083

Supplemental Box

In case the space in any of the preceding boxes is not sufficient.

V. 2. Citations and Explanations:

Claims 9-11, meet the criteria set out in PCT Article 33(2), because the prior art does not teach or fairly suggest the claim limitations.

Claims 1-28, meet the criteria set out in PCT Article 33(4), and thus have industrial applicability because the subject matter claimed can be made or used in industry.

1. Claims 1-8 and 12-28 lack novelty under PCT Article 33(2), as being anticipated by Leach et al. (US Patent No. 5,390,304) herein Leach.

Claim 1

Leach teaches: In a group of computer processors (FIG. 1), an improvement comprising: a first processor (FIG. 1, Microcontroller 10 *Note: The microcontroller contains controller 14, cpu 12, and memories 16, 18 and 20*); and a second processor (FIG. 1, DMA co-processor 22); and wherein said second processor monitors at least one input port while said first processor accomplishes another task (FIG. 1, DMA co-processor 22, Com ports 50-55, Ports 24 and 26; C. 8 L. 19-39).

Claim 2

The rejection of claim 1 is incorporated and further Leach teaches: said first processor is programmed to occasionally check to see if said second processor has initiated a communication there between (C. 33 L. 25-46).

Claim 3

The rejection of claim 1 is incorporated and further Leach teaches: said second processor is programmed to handle input from the input port without interaction with said first processor (C. 7 L. 26-48).

WRITTEN OPINION OF THE
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Supplemental Box

In case the space in any of the preceding boxes is not sufficient.

Claim 4

The rejection of claim 3 is incorporated and further Leach teaches: said second processor is programmed such that its programming will optionally initiate a communication with said first computer (C. 7 L. 49-61).

Claim 5

The rejection of claim 4 is incorporated and further Leach teaches: said communication is a transfer of instructions from said second processor to said first processor (C. 7 L. 26-61, FIG. 1 *Note: The inclusion of program bus 34 shows that instructions are stored in memory*).

Claim 6

The rejection of claim 4 is incorporated and further Leach teaches: said communication is a transfer of data from said second processor to said first processor (C. 7 L. 26-61, FIG. 1 *Note: The inclusion of data bus 34 shows that data is stored in memory*).

Claim 7

The rejection of claim 4 is incorporated and further Leach teaches: said communication is in the form of data and/or instructions being sent from said second processor to said first processor (C. 7 L. 26-61, FIG. 1).

Claim 8

The rejection of claim 1 is incorporated and further Leach teaches: said input port is an external port for communicating with an external device (FIG. 1).

Claims 12 and 28

Claims 12 and 28 contain the same limitations as claim 1 and are rejected for the same reason set forth in connection with the rejection of claim 1.

Claim 13

Claim 13 contains the same limitation as claim 3 and is rejected for the same reason set forth in connection with the rejection of claim 3.

Claim 14

The rejection of claim 12 is incorporated and further Leach teaches: in response to input from the port said first computer runs a routine (C. 7 L. 26-61).

Claim 15

The rejection of claim 14 is incorporated and further Leach teaches: said routine includes interfacing with said second computer (C. 7 L. 26-61).

Claim 16

The rejection of claim 15 is incorporated and further Leach teaches: said routine includes writing to said second computer (FIG. 10).

Claims 17 and 18

Claims 17 and 18 contain the same limitations as claims 6 and 5 and are rejected for the same reasons set forth in connection with the rejections of claims 6 and 5.

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US07/04083

Supplemental Box

In case the space in any of the preceding boxes is not sufficient.

Claim 19

The rejection of claim 18 is incorporated and further Leach teaches: said instructions are executed by said second computer sequentially as they are received (FIG. 7a and 7b, C. 20 L. 25-36).

Claims 20-27

Leach teaches: A computer readable medium having code embodied therein for causing an electronic device to perform the steps of Claims 12-19 (FIG. 1, RAM 16, 18 and 20).

1. Claim 9 lack an inventive step under PCT Article 33(3), as being obvious over Leach in view of Hennessy et al ("Computer Architecture: A Quantitative Approach" Third Edition) herein Hennessy.

Claim 9

The rejection of claim 1 is incorporated and further Leach teaches: at least one of said processors comprises: an instruction register for temporarily storing a group of instructions to be executed; and a program counter for storing an address from which a group of instructions is retrieved into said instruction register; and wherein the address in said program counter can be a memory address (FIG. 7a, C. 18 L. 29 - C. 19 L. 13)

Leach does not specifically teach: the address can be the address of a register. However, Hennessy, in an analogous art, does teach the above limitation (pp 98) as a register indirect addressing mode.

All of the component parts are known in Leach and Hennessy. The only difference is the combination of the old elements into a single device by using register indirect addressing for the program counter. The use of a register indirect addressing mode is not dependent upon a particular architecture and can be applied for use in any system. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Hennessy into the teaching of Leach to achieve a predictable result.

2. Claim 10 lack an inventive step under PCT Article 33(3), as being obvious over Leach/Hennessy as applied to claim 9 above, and further in view of Uehara (2004/0003219) herein Uehara.

Claim 10

The rejection of claim 9 is incorporated and further Leach/Hennessy teaches: said group of instructions is retrieved into said instruction register generally simultaneously (Leach FIG. 7a, C. 18 L. 29 - C. 19 L. 13).

Leach/Hennessy does not specifically teach: said plurality of instructions is repeated a quantity of iterations as indicated by a number on a stack. However, Uehara, in an analogous art, does teach the above limitation (FIG. 1, FIG. 9) for the purpose of loop control.

All of the component parts are known in Leach/Hennessy and Uehara. The only difference is the combination of the old elements into a single device by using the loop control method taught my Uehara. The use of the loop control method is not specific to any one architecture and can be applied to another system. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Uehara into the teaching of Leach/Hennessy to achieve a predictable result.

3. Claim 11 lack an inventive step under PCT Article 33(3), as being obvious over Leach as applied to claim 1 above, and further in view of Tran (US Patent No. 5,752,259) herein Tran and in view of Uehara.

Claim 11

The rejection of claim 1 is incorporated but Leach does not specifically teach: at least one of said processors comprises: a plurality of instructions that are read generally simultaneously. However, Tran, in an analogous art, does teach the above limitation (FIG. 1, C. 3 L. 22-51) in order to speed up instruction availability.

All of the component parts are known in Leach and Tran. The only difference is the combination of the old elements into a single device by fetching multiple instructions simultaneously. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Tran into the teaching of Leach to achieve a predictable result.

Leach/Tran does not specifically teach: said plurality of instructions is repeated a quantity of iterations as indicated by a number on a stack. However, Uehara, in an analogous art, does teach the above limitation (FIG. 1 and 9).

All of the component parts are known in Leach/Tran and Uehara. The only difference is the combination of the old elements into a single device by using the loop control method taught my Uehara. The use of the loop control method is not specific to any one architecture and can be applied to another system. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Uehara into the teaching of Leach/Tran to achieve a predictable result.